

# **METHOD FOR FORMING A JUNCTION REGION OF A SEMICONDUCTOR DEVICE**

## **ABSTRACT OF THE INVENTION**

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A method for forming a junction region of a semiconductor device is disclosed. The steps of the method include providing a semiconductor substrate. A gate structure is formed on the semiconductor substrate. 10 A dopant is implanted into the semiconductor substrate to form the junction region. An insulator layer is formed on the gate structure and the semiconductor substrate. A carbon-containing plasma treatment is performed to the insulator layer. A spacer is formed on a side-wall of the 15 gate structure and the dopant is implanted into the semiconductor substrate to form a source/drain region next to the junction region. A heat treatment is performed to the semiconductor substrate.

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